

# ERN

Emergency  
Responder  
Note

## (U) Ammonium Nitrate/Fuel Oil (ANFO)

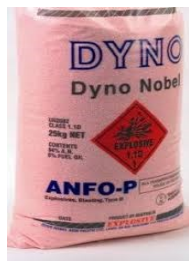
(U) **WARNING:** Ammonium Nitrate/Fuel Oil (ANFO) is a binary explosive that may be initiated by the shock from another explosive detonating, or when large quantities are subjected to extreme heat in close proximity, such as an active fire. Call your PUBLIC SAFETY BOMB SQUAD/LAW ENFORCEMENT OR EXPLOSIVE ORDNANCE DISPOSAL (EOD) UNIT.

(U) **NOTE:** This product is provided for awareness and information purposes only. ALWAYS follow your individual office standard operating procedures (SOPs) when encountering suspected improvised explosive device (IED)-related materials.

### (U) IDENTIFICATION

⚠ Tertiary  
Explosive

⚠ Off white – pink  
prills



### (U) COMMERCIAL SOURCES

- Found in mining, quarrying, and tunneling operations.
- Commercial explosive vendors sell unmixed and pre-mixed ANFO.
- Easily produced HME by obtaining its explosive precursor chemicals.

### (U) ANFO QUICK LOOK



A binary explosive combining ammonium nitrate and fuel oil to create a powerful explosive used commercially in mining, quarrying, and tunneling operations. Accessibility, cost-effectiveness, ease of improvisation, and sheer explosive power make it an attractive and popular explosive for terrorists. Due to its insensitivity, ANFO is classified as a tertiary explosive and requires a booster to ensure reliable detonation.



#### AMMONIUM NITRATE (AN)

A commercially available nitrate salt—typically used as an agricultural fertilizer—with explosive properties on its own. Manufactured AN designed to be combined with fuels are made intentionally porous for the rapid intake of fuel.



#### FUEL OIL (FO)

The fuels most commonly used in the binary explosive mixture are No. 2 fuel oil, diesel fuel, and sometimes kerosene.

### i (U) ANFO AT A GLANCE

**MATERIAL  
TYPE**

**Binary Explosive**

An explosive formed by combining two non-explosive materials (an oxidizer and a fuel).

**INCIDENTS** [Oklahoma City Bombing \(1995\)](#)

### (U) SAFETY PRECAUTIONS

- If suspected ANFO catches fire, **do not attempt to fight the fire;** evacuate the area immediately.
- Never subject suspected explosive materials to sources of heat, shock, or friction, especially when dry.
- Avoid handling ANFO without **proper safety equipment**—gloves, eye protection, and clothing to prevent skin exposure. ANFO can irritate exposed skin and other body parts, e.g., eyes.
- Do not handle suspected homemade ANFO. Additional explosive precursor chemicals may have been added, increasing sensitivity.